

IN THE CLAIMS:

The listing of claims, if entered, will replace all prior versions, and listings, of claims in the above-identified patent application:

1. (currently amended) A method of generating a user non-volatile memory interface megafunction for a programmable logic device having a user accessible non-volatile memory ("UNVM"), the programmable logic device including a raw UNVM interface for passing signals to and from the user accessible non-volatile memory, the method comprising:

selecting an interface protocol;

specifying zero~~one~~ or more parameter values for the selected interface protocol;

generating a user non-volatile memory interface megafunction using the selected interface protocol and the specified ~~one or more~~ parameter values;

configuring the programmable logic device as the user non-volatile memory interface using the generated user non-volatile memory interface megafunction;

wherein the ~~generated~~ user non-volatile memory interface passes signals to and from the raw UNVM interface.

2. (original) The method of claim 1 wherein the interface protocol is selected from a group comprising one or more of the following: None, Parallel interface, SPI interface, I²C interface, 3-wire interface and 3-wire compatible interface.

3. (original) The method of claim 1 wherein the one or more parameter values include one or more of the following: memory type, memory configuration, mode, page size, and/or device address.

4. (original) The method of claim 3 wherein the memory type is selected from one or more of the following: 2 Kbits or 4 Kbits.

5. (original) The method of claim 3 wherein the memory configuration is selected from one or more of the following: 1 Kbits: 64x16, 1 Kbits: 128x8, 2 Kbits: 128x16, 2 Kbits: 256x8 or 4 Kbits: 256x16.

6. (original) The method of claim 3 wherein the mode is selected from at least the following: read only or read/write.

7. (original) The method of claim 3 wherein the page size is selected from at least the following: 8 bytes, 16 bytes, or 32 bytes.

8. (currently amended) The method of claim 3[1] wherein the device address is a binary number value.

9. (cancelled)

10. (original) The method of claim 1 further comprising compiling an electronic design including instructions specifying the user non-volatile memory interface megafunction to produce instructions for producing an integrated circuit

having the user non-volatile memory interface megafunction incorporated therein.

11. (original)The method of claim 1 wherein the one or more parameters are specified on a graphical user interface.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (Currently Amended) A computer program product comprising a computer readable medium on which is stored program instructions for a method of generating a user non-volatile memory interface megafunction for a programmable logic device having a user accessible non-volatile memory ("UNVM"), the programmable logic device including a raw UNVM interface, the method comprising:

selecting an interface protocol;

specifying zero or more parameter values for the selected interface protocol;

generating a user non-volatile memory interface megafunction using the selected interface protocol and the specified one or more parameter values; and, ~~Interface~~.

configuring the programmable logic device as a user non-volatile memory interface using the generated user non-volatile memory interface megafunction.

18. (currently amended) A method of providing compilable variations of a user non-volatile memory interface for an electronic device designs, the user non-volatile memory interface requiring specific settings before it can be compiled to unambiguous circuit blocks ~~forming parts of electronic designs~~, the method comprising:

receiving a set of option settings containing user-selected settings for the a user non-volatile memory interface, the set of option settings being selected from a plurality of sets of option settings wherein each set of option setting corresponds to one of a plurality of interface protocols;

generating a compilable variation file specifying the received set of option settings; and

using the compilable variation file to generate unambiguous circuit blocks of an electronic device; and

configuring the electronic device as the unambiguous circuit blocks using the generated user non-volatile memory interface megafunction;

wherein the electronic device includes a user accessible non-volatile memory and a raw UNVM interface for passing signals to and from the user accessible non-volatile memory and wherein the user non-volatile memory interface passes signals to and from the raw UNVM interface.